



This goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System.

Welcome to Rachel Carson National Wildlife Refuge. The refuge consists of eleven divisions located along Maine's southern coast between Portland and Kittery. Protecting estuaries, salt marshes and adjacent upland areas, the 5,000-acre refuge provides valuable wildlife habitat.

This list of 55 species is based on records and observations by refuge personnel. Quiet and patient observers will have the best opportunities to see mammals. To insure the animals' safety and yours, please do not feed or approach them. They are wild and can be unpredictable. Should you spot a rare or unusual species, please contact the Refuge Manager at Rachel Carson National Wildlife Refuge; 321 Port Road; Wells, ME; 04090 or call 207/646 9226.

\*Denotes species of special concern (SC) as of February 2001 by the Maine Department of Inland Fisheries and Wildlife. These mammals may become endangered without habitat protection. (There are no known state or federally threatened or endangered mammals on the refuge.)

## **MARSUPIALS**

(Marsupialia)

## Virginia Opossum

(Didelphis virginiana) Common. Greyish-white; long, scaly tail. They live in deciduous woods near wetlands and can be found in developed areas. They forage at night for fruit, small mammals, nestling birds, eggs, carrion and refuse.

## **INSECTIVORES**

(Insectivora)

#### **Masked Shrew**

(Sorex cinereus)

Abundant. Brown; belly is grevblack. Found in marshes and moist woodlands with dense vegetation and fallen logs. It may be the most common small mammal in the Northeast. Forages day and night for insects, slugs and spiders.

#### **Short-tailed Shrew**

(Blarina brevicauda)

Abundant. Dense coat black to grev: tail very short. Found in fields, mixed woods and marsh borders. They travel in shallow tunnels, foraging on earthworms, insects and small rodents. They are one of very few mammals with a poisonous bite.

#### **Water Shrew**

(Sorex palustris)

Uncommon. Black to dark grey; feet are hairy and partially webbed. Found along streams. Water shrews can swim, run on the surface of water and search for food along stream bottoms. They dive for aquatic insects, snails and leeches, staying under water for nearly one minute.

#### **Smokey Shrew**

(Sorex fumeus)

Uncommon. Brown in summer, dark grev in winter. Tail is dark on top and vellow-tan beneath. Found in damp, rocky, upland woods. They travel through fallen leaf tunnels to forage for insects, earthworms and grasses.

## Hairy-tailed Mole

(Parascalops breweri)

Common. Dark brown with large, clawed forefeet; tiny eyes. Found in open woods and fields. They create mazes of subsurface tunnels. constantly searching for insects and earthworms. They eat one to three times their body weight daily.

#### Star-nosed Mole

(Condylura cristata)

Common. Blackish fur: nose has many short "tentacles." Found in marshes and tall grass meadows. They forage for insects, earthworms. leeches and small fish. Researchers believe they may use their long nasal appendages as an electrosensor to find food.



BATS (Chiroptera)

## Little Brown Myotis\*

(Myotis lucifugus)
(SC) Northernmost of all North
American bats. They may be seen
foraging for food just above the
surface of rivers and ponds. Little
brown myotises can live to be 33
years old.

## Northern Long-eared Myotis\*

(Myotis septentrionalis)
(SC) Most often feeds within forests, picking insects from twigs and leaves. By day, solitary males and groups of females hide in tree hollows or cling behind loose bark.

#### Silver-haired Bat\*

(Lasionycteris noctivagans)
(SC) Resembles a very large moth.
This bat slowly flies over woodland ponds and streams in search of insects. They live in tree crevices.
Migratory.

## Small-footed Myotis\*

(Myotis leibii) (SC) Also called Leib's bat, this species is very small, weighing only up to 0.28 ounces. They have a RODENTS (Rodentia) distinctive black mask. Small-footed myotises hunt insects at night, often in hemlock stands.

## Eastern Pipistrelle\*

(Pipistrellus subflavus)
(SC) Observers may find the pipistrelle foraging over field edges, streams and ponds. It flies in the late afternoon, sometimes feeding on insects with swallows and swifts.

#### Red Bat\*

(Lasiurus borealis)
(SC) Distinctly bright orange to yellow-brown with long fur. Seldom found far from woods, they roost in leaves. Flight has been clocked at 40 miles per hour. Migratory species; they are believed to fly to Central and South America for the winter.

#### **Hoary Bat\***

(Lasiurus cinereus)
(SC) Brown to tan with whitetipped fur. Feeds on moths and
mosquitos late into the night. Roosts
in trees that provide dense cover.
Long-distance migrator, similar to
the red bat.

## Big Brown Bat\*

(Eptesicus fuscus)
(SC) A bat of open areas. They forage—primarily for beetles—just after sunset. Most often the species inhabiting people's houses.

## **New England Cottontail\***

(Sylvilagus transitionalis)
(SC) Rare. Differs from eastern cottontail by black spot between ears and dark edges on front of ears. Inhabits shrubby fields and salt marshes. Feeds on green vegetation in summer, and bark and twigs in winter. Requires dense cover.

#### **Snowshoe Hare**

(Lepus americanus)
Common. Found throughout the refuge in dense, brushy areas.
Favors second growth aspen-birch forests. Feeds on grasses, ferns, bark, buds and clover.

#### **Eastern Chipmunk**

 $(Tamias\ striatus)$ 

Abundant. Found on all refuge divisions and a virtual guarantee on the Carson Trail from spring to fall. Feeds on seeds, roots, nuts and insects.

#### Woodchuck or Groundhog

(Marmota monax)

Common. Chunky body with yellowbrown, white-tipped fur; black feet. They are found in open fields and brushy areas. Woodchucks excavate tunnels where they sleep at night and overwinter. They feed by day on grasses, wildflowers, bark and twigs.

## **Grey Squirrel**

(Sciurus carolinensis)

Common. Found in and around oak and pine forests. They eat seeds, nuts, buds, bark, bird eggs and fungi. Grey squirrels live in leafy nests and cavities of mature trees. They do not hibernate.

## Red Squirrel

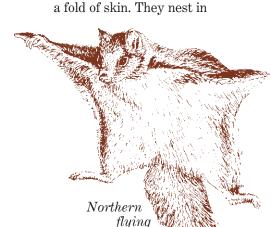
(Tamiasciurus hudsonicus) Abundant. Found in coniferous or

mixed woods. They are active at dawn and dusk, except in winter when they forage at midday. Red squirrels eat conifer seeds, nuts, fruit, mushrooms, and nestling birds and rabbits. They nest in cavities but also make leafy nests in trees or on the ground.

#### Northern Flying Squirrel

(Glaucomys sabrinus)
Common. Brown silky fur, belly hairs white with dark bases. Large eyes.
Active at night in mature, mixed woods. Not true fliers, they glide

from branch to branch by spreading



woodpecker holes. Diet is similar to the grey squirrel.

## Southern Flying Squirrel\*

squirre

Robert Savannah

(Glaucomys volans)
(SC) Told from northern flying squirrel by overall smaller size; belly hairs are all white. Found in mature oak-pine forests. Species has been observed on the Upper Wells Division. They eat nuts, buds, twigs, insects and bird eggs.

#### **Beaver**

(Castor canadensis)

Common. Dark brown; paddle-shaped, scaly tail. Found in tidal rivers and permanent streams with adjacent hardwood forests. Builds dams, creating ponds beneficial to waterfowl and other marsh birds.

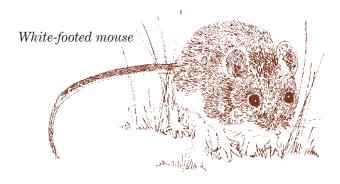
#### **Deer Mouse**

(Peromyscus maniculatus)
Common. Large eyed;
brown to blackish above, white
underparts. Tail has a tuft of hair at
its end. Deer mice are common along
edges of both coniferous and mixed
forests. They forage at night for
insects and may climb trees for buds
and seeds.

#### White-footed Mouse

(Peromyscus leucopus)

Abundant. Similar to deer mouse but reddish with a dark band down the back. Lacks tuft of hair on end of tail. Primarily nocturnal. Found in woods with ground vegetation and downed logs. They eat nuts, seeds, grasses, and insects on the ground and in trees.



#### Southern Red-backed Vole

(Clethrionomys gapperi)
Common. Chestnut-colored. Found in coniferous or mixed woods. They are active day and night and feed on grasses, nuts, seeds, fungi, and insects on the ground and, less commonly, in trees.

#### **House Mouse**

(Mus musculus)

Abundant. Grey to yellow-brown; tail is scaly, belly buff-colored. Nonnative. Found in and around buildings near fields and woods.

Active mostly at night, they can readily climb. House mice eat insects, seeds and refuse.

#### **Meadow Jumping Mouse**

(Zapus hudsonius)

Common. Brown with a dark band on their backs, kangaroo-like feet. They inhabit salt marshes and wet fields. They eat seeds, fruit and insects. They can jump up to one foot when surprised.

#### **Woodland Jumping Mouse**

(Napaeozapus insignis)
Common. Brown back, russet sides, very large hind feet. Found in coniferous and deciduous woods near streams. They forage around stumps and downed branches for plants, seeds and fungi.

#### Meadow Vole

(Microtus pennsylvanicus)
Common. Dark brown, grey
underparts. Found in and near salt
marshes and meadows. They
maintain a system of runways in
which they forage on grasses and
sedges.

#### **Woodland Vole**

(Microtus pinetorum)
Rare. Reddish brown with grey
underparts. The only representatives
of this species in Maine have been
found on the refuge. They live in
deciduous or mixed woods, tunneling
underground or under grasses. They
eat roots, wildflowers and nuts.

## **Southern Bog Lemming**

(Synaptomys cooperi)
Uncommon. Approximately five inches in length including a 3/4-inch tail. Brown-grey in color, ears nearly concealed. Found in wetlands, bogs and wet meadows.

#### **Norway Rat**

(Rattus norvegicus)

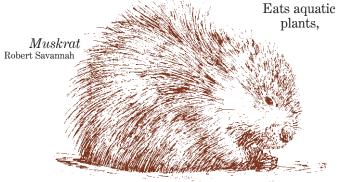
Common. Dark brown, smaller than a grey squirrel, tail scaly. Non-native. Common in old farmlands near buildings. Can swim and climb well. Eats fruit, eggs, fish, small rodents and refuse.

#### Muskrat

(Ondatra zibethicus)

Common. Dark brown; tail is long and scaly. Often observed from

Carson Trail on Upper Wells Division. plants.



primarily cattails, by day. Builds lodges of mud and vegetation.

## **Porcupine**

(Erethizon dorsatum)

Common. Found in mixed and coniferous woods. Usually solitary and nocturnal. They rest high in trees while not foraging for needles, tree bark, leaves and wildflowers.

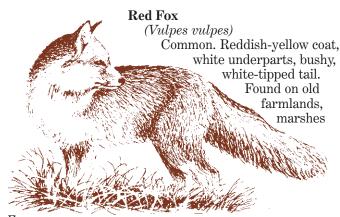
## **CARNIVORES**

(Carnivora)

## Covote

(Canis latrans)

Common. Grey with reddish legs; the size of a medium dog. Found in uplands near edges of second-growth forests and disturbed areas. Individuals prey upon small mammals and scavenge carrion. Packs will take young or sick white-tailed deer.



FoxRobert Savannah

and meadow edges. They prey upon small mammals, birds, nuts and fruit.

## **Grey Fox**

(Urocyon cinereoargenteus) Common. Grey, with russet legs and sides, black line down blacktipped tail. Prefers heavily wooded forests and thickets interspersed with wet areas. Eats small mammals, insects, cravfish and fruit.

#### Black Bear

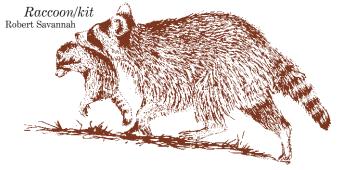
(Ursus americanus)

Uncommon. Found in wooded edges, blueberry barrens and abandoned orchards. Bears eat carrion, insects, fruit, berries and nuts. Increasing in southern Maine.

#### Raccoon

(Procyon lotor)

Common. Found on all refuge divisions. Although nocturnal, may be frequently observed along stream sides foraging for crabs and fish.



#### **Fisher**

(Martes pennanti)

Uncommon. Long, sleek; dark brown with white-frosted fur. Found in wetlands in mixed forests. Fishers hunt for small mammals, birds and carrion. They are the chief predator of porcupines.

#### **Ermine or Short-tailed Weasel**

(Mustela ermina)

Uncommon. Dark brown with white underparts and feet. Coat becomes completely white in winter except black tip of tail. Found in wooded or brushy areas near streams. Ermines prey upon small mammals, foraging under the snow in winter.

#### **Long-tailed Weasel**

(Mustela frenata)

Uncommon. Dark brown with white underparts; feet brown. Found in forest-field edges near streams and in marshes. They consume up to 70 percent of their body weight each day by eating small mammals, birds, insects and berries.

#### Mink

(Mustela vison)

Common. Dark brown with white chin patch. Found in brushy areas near ponds and streams. Minks are active at night and excellent swimmers. They eat small mammals, frogs and fish.

## **Striped Skunk**

(Mephitis mephitis)

Common. Typically black with white "V" from nape to tail, though some are all white or all black. Found in semi-open areas close to human habitation. Nocturnal. Eats small rodents, eggs, insects, berries and carrion.

#### **River Otter**

(Lontra canadensis)

Uncommon. Occasionally seen from Carson Trail. Distinguished from muskrat by its sleek body; long, furred tail and long whiskers. Found along rivers in forested areas. Feeds on fish, frogs, turtles, snakes and small birds.

#### **Bobcat**

(Lynx rufus)

Rare. 2–3 times larger than a house cat; rusty brown-grey with black spots; short, black-tipped tail. Found in wet, mixed woods. Eats small mammals, deer and carrion.



# **SEALS** (Pinnepedia)

#### **Harbor Seal**

(Phoca vitulina)

Common. Dark grey with or without brown spots. They have "V"-shaped nostrils. May be observed at haul-out sites from Brave Boat Harbor, Lower Wells, Mousam and Goose Rocks Divisions throughout the year. They prey on shellfish, crabs and shallowwater fish such as flounder.

## **Harp Seal**

(Phoca groenlandica)

Uncommon. Grey with brown head, brown band (harp or horseshoe shaped) down sides. Females do not have brown markings. Seen in winter, occasionally along Goose Rocks beach. Harp seals feed on small crustaceans and finfish.

#### **Grey Seal**

(Halichoerus grypus)
Uncommon. Variable color, ranging from light tan/gray to almost black.
Adult males have a distinct horse-like nose. Nostrils form a "W." The population in the Gulf of Maine is steadily increasing. Generally not observed hauling out on the refuge; they prefer remote islands and rocky coasts.

#### **Hooded Seal**

(Cystophora cristata)
Uncommon. Light grey coat with irregular, dark, blotchy patches.
Adult males inflate large, black nasal sacs and red nasal septum for defensive display. Can be observed occasionally hauling out on refuge salt marshes in winter.

#### **Ringed Seal**

(Phoca hispida)

Uncommon. Darker coat with ringshaped markings. Primarily an Arctic species. Rarely observed on refuge lands. Sometimes strandings occur on Maine beaches.

#### **UNGULATES**

(Artiodactyla)

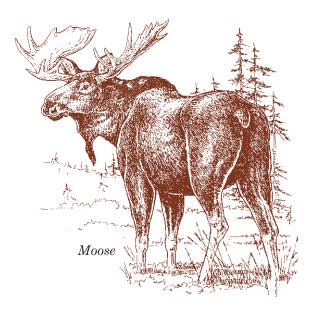
#### White-tailed Deer

(Odocoileus virginianus)
Abundant. Found in mixed woods, meadows and lawns. They eat grasses, leaves, buds and twigs. The high population is impacting native and cultivated plants in southern Maine.

#### Moose

(Alces alces)

Uncommon. Found in woods especially those adjacent to marshes. Moose browse on leaves, wetland plants, twigs and buds.



## The National Wildlife Refuge System

Rachel Carson is one of more than 500 refuges in the national wildlife refuge system administered by the U.S. Fish & Wildlife Service. The national wildlife refuge system is a network of lands and waters managed specifically for the protection of wildlife and wildlife habitat and represents the most comprehensive wildlife management program in the world. Units of the system stretch across the United States from northern Alaska to the Florida Keys and include small islands in the Caribbean and south pacific. The character of these is as diverse as the nation itself.

The Service also manages national fish hatcheries, and provides Federal leadership in habitat protection, fish and wildlife research, technical assistance and the conservation and protection of migratory birds, certain marine mammals and threatened and endangered species.